

## INSTRUCTIONS

No. 21-29763-08

1. No single application for the auction of water from State lands shall include well sites located in more than one section of land.
2. This application will not be considered unless it is fully completed and all supplemental forms and information, including the hydrology report referred to in question 15, are completed and attached.
3. Attach additional pages, if necessary.
4. Filing fee of \$50.00 must be paid at the time this application is submitted.

**ARIZONA STATE LAND DEPARTMENT**  
**1624 West Adams**

Phoenix, Arizona 85007

**APPLICATION FOR THE COMMISSIONER TO AUCTION WATER FROM STATE LANDS**

**APPLICANT INFORMATION**

I/we Cyprus Mines Corporation

(name)

of Post Office Box 245, Bagdad, Arizona 86321

(address)

do hereby make application for the auction of water under the lands hereinafter described, in accordance with the provisions of the law of the State of Arizona, the rules and regulations of the State Land Department, the provisions of the surface lease, easement or permit, and provisions of the Water Agreement.

Subdivision	Section	Township	Range	Acreage	County
NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	24	15N	9W	10	Yavapai

1. State whether individual, partnership or corporation. corporation
2. If individual, state: Age n/a Sex        Marital Status
3. If corporation, give State in which incorporated. Delaware  
Is the corporation authorized to do business in Arizona? yes
4. If a partnership, state the names and addresses of each partner.  
n/a
5. Would the rights under a Water Agreement be held in trust for anyone other than the applicant? No If yes, please attach a certified recorded copy of the trust agreement showing the name, address, age, citizenship and marital status of each beneficiary, principal or ward.

I hereby certify under the penalty of perjury, that the information contained and statements herein made are, to the best of my knowledge and belief, true, correct, and complete.

Dated this 15th day of March, A.D., 19 86.

Cyprus Mines Corporation

Applicant

By

C.W. Reno, VP and General Manager

THE FOLLOWING IS NOT TO BE FILLED IN BY APPLICANT:

Fees Received: _____	Receipt No. _____	Recorded by: _____
Date of Contract _____	Approved or denied by _____	Date: _____
Cause of Denial _____		

PDC000165

# LAND AND HYDROLOGIC INFORMATION

6. By this application, applicant applies for 194,472,000 gallons ~~xxxxxx~~ ~~feet~~ of groundwater per year for the ten year period beginning June 7, 1986, and ending June 6, 1989~~6~~, which if successful bidder at auction, the applicant proposes to use for domestic, municipal and industrial purposes (purpose).

7. (a) The water will be removed by the use of the presently existing wells which are located on the State lands as follows:

Location	Sec.	Twp.	Rge.	Depth	Pump H.P. not in use	Capacity
NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	24	15N	9W	250'	(30)	g.p.m.
NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	24	15N	9W	288'	50	65 g.p.m.
NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$	24	15N	9W	525'	90	275 g.p.m.

- (b) Are the wells described in subsection (a) located on lands within an Active Management Area or an area designated as Irrigation Non-expansion (hereafter respectively "AMA" and "INA") as defined in the 1980 Groundwater Management Act (hereafter "Act")?

No

If so, indicate which AMA or INA: n/a

If applicable, is there a grandfathered water right associated with the groundwater sought to be purchased by reason of this application?  
n/a

If so, what is the type and anticipated amount of grandfathered water rights? n/a

8. (a) If applicable, the sale of the water will require the following described new wells: n/a

Location	Sec.	Twp.	Rge.	Depth	Pump H.P.	Capacity
<u>NE <math>\frac{1}{4}</math> NE <math>\frac{1}{4}</math> NE <math>\frac{1}{4}</math></u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u> g.p.m.
<u>NE <math>\frac{1}{4}</math> NE <math>\frac{1}{4}</math> NE <math>\frac{1}{4}</math></u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u> g.p.m.
<u>NE <math>\frac{1}{4}</math> NE <math>\frac{1}{4}</math> NE <math>\frac{1}{4}</math></u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u> g.p.m.

- (b) Will the wells described in Subsection (a) be located on lands within an AMA or INA? no

If so, indicate which AMA or INA: n/a

Will the drilling of any such wells and withdrawal of groundwater therefrom require the issuance of a groundwater withdrawal permit under the Act? no

Will any of the wells described in Subsection (a) be drilled and used as a replacement for any other well? no. If so, which is the replacement well:     . Describe the well to be replaced and explain the need for its replacement:     

9. The State lands from which the water is proposed to be withdrawn, and across which the water is to be transported, is subject to Lease Number 03-878, issued to Cyprus Bagdad Copper Company

10. There are no known mineral claims, abandoned workings, minerals, oil, gas, fertilizer or fossils upon the land deferred to in questions 7, 8, 9 and

13 except: None

11. The presently existing improvements which are anticipated to be necessary for the withdrawal and transportation of the water, the public auction of which is sought hereby, include:

water well, 10" casing, 50 h.p. pump

water well, 12" casing, 90 h.p. pump

water well (not in use)

approx. 20' x 20' fence

and are owned by Cyprus Mines Corporation

12. The following described new improvements will be required in addition to the wells:

None

13. (a) The water will be used upon the following described lands:

Sub.				Section	Twp.	Rge.	County
S $\frac{1}{2}$				2	14N	9W	Yavapai
S $\frac{1}{2}$	x	x	x	3	14N	9W	Yavapai
N $\frac{1}{2}$	x	x	x	10	14N	9W	Yavapai
NW $\frac{1}{4}$	x	x	x	11	14N	9W	Yavapai

- (b) In transporting the water from the place of withdrawal to the place of use described in subsection (a) of this question, will the water be transported across basin or subbasin boundaries? No

If yes, explain:

- (c) Are the lands described in subsection (a) located within an AMA or INA? No. If so, indicate which AMA or INA: \_\_\_\_\_

If applicable, is there a grandfathered water right associated with the land upon which the water is proposed to be used? n/a

If yes, what is the anticipated type and amount of the grandfathered water right? n/a

Are the lands described in Subsection (a) located within the service area of, or served by, any public or private water company or utility? No. If yes, explain: \_\_\_\_\_

Do the lands described in Subsection (a) qualify for water to be made available by reason of the Central Arizona Project? No. If yes, explain the type of qualification, by whom the water will be delivered and the amount of the present allocation of Central Arizona Project water to the person or entity to deliver the water:

14. Is applicant aware of any impediment to the withdrawal, transportation, or use of the groundwater as described in this application existing by reason of the Act or any other law which may affect the legality of the sale applied for herein? No

If yes, explain:

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15. Attach a hydrology report which shows that the amount of water sought to be purchased is available.
16. Using the plat on the following page, identify the locations of whichever of the following are applicable:
- (a) Presently existing wells;
  - (b) Proposed new wells;
  - (c) Presently existing improvements other than wells;
  - (d) Proposed new improvements other than wells;
  - (e) Access routes, including description and dimensions;
  - (f) Basin or subbasin boundaries;
  - (g) Land upon which water is proposed to be used; and
  - (h) Land ownership.

If this application is approved and an auction is held, any resulting access route will be subject to the laws of the State of Arizona, the Rules and Regulations of the Department, the provisions and conditions contained in the Water Agreement, and the provisions and conditions contained in the appropriate surface lease, easement or permit which buyer must acquire from the Arizona State Land Department. Neither the making of this application, acceptance by the Arizona State Land Department of this application or filing fee, a water agreement nor subsequent issuance of any surface lease, easement or permit for withdrawal or transportation of the water purchases should be considered as an approval or suggestion of any kind whatsoever of an access route over any private, federal, Indian or other lands.

#### ACKNOWLEDGMENT

By the signature below, the applicant acknowledges and recognizes that neither the making of this application nor the acceptance by the Arizona State Land Department of this application or the filing fee submitted herewith in any way gives to or vests in the applicant any right or entitlement to any water or use of State land for which this application is made.

#### VERIFICATION

By signing this application, I/We hereby certify to the Department under penalty of perjury that the statements made and information contained in this application, and in all supplemental information attached hereto, are full, true, correct and complete to the best of my/our knowledge and (if applicable) further certify that I/We am/are legally authorized to make this application for and on behalf of the persons described herein.

DATED March 15, 1986

BY

C.W. Reno Signature(s)

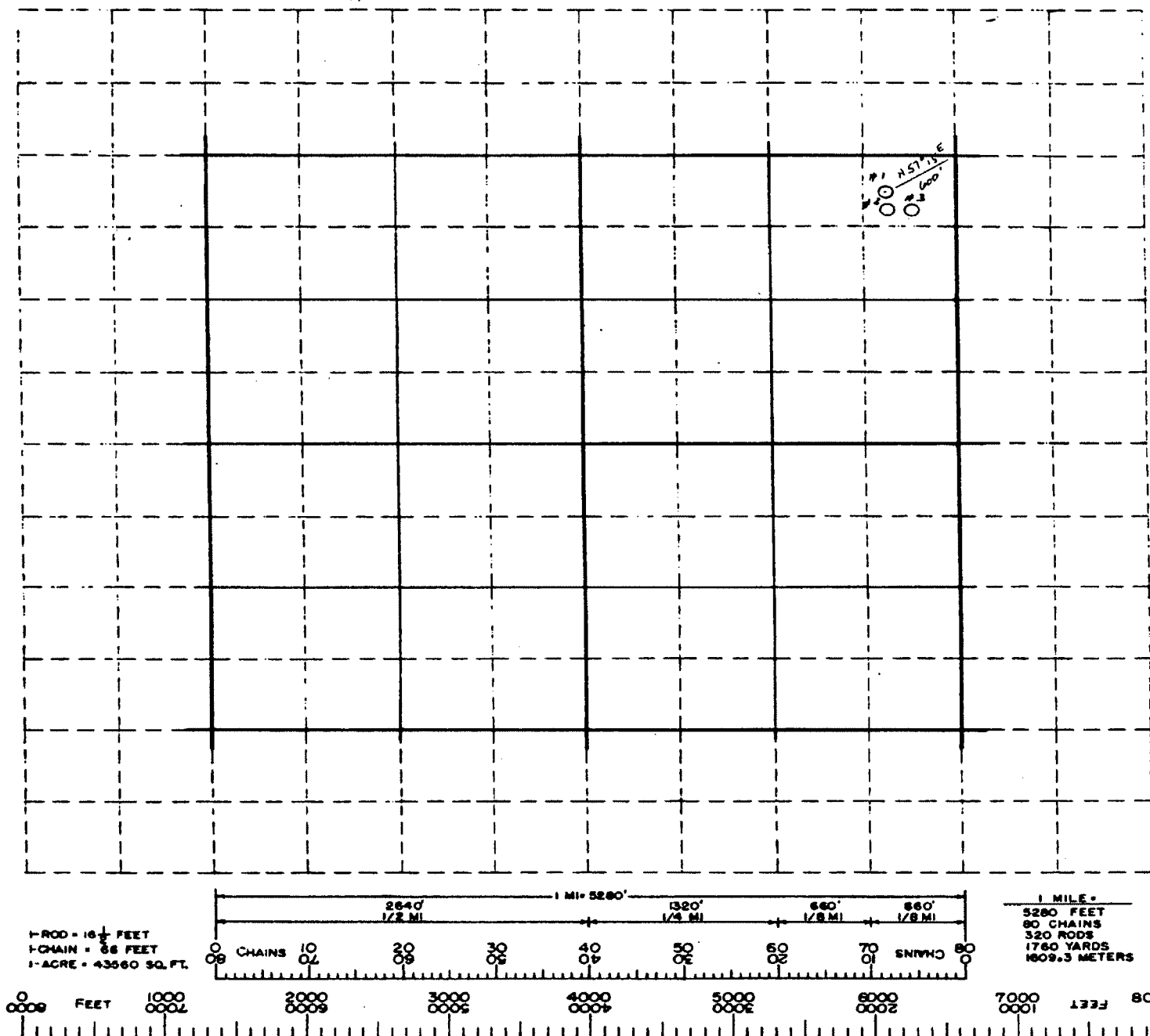
If applicant is other than individual, indicate:

VP and General Manager

(Title of person signing)

SEC 24 TWP 15N  
RGE. 9W

ARIZONA STATE LAND DEPT.



- |                     |                     |                     |               |
|---------------------|---------------------|---------------------|---------------|
| ⊕ windmill          | ⊕ elec. centrifugal | ○ abandon-open case | ◇ exploration |
| ⊕ elec. submersible | ⊕ liquid fuel       | ⊗ abandon-capped    | ⊗ artesian    |
| ⊕ elec. turbine     | ⊕ natural gas       | ⊙ plugged           |               |

FOR DEPARTMENTAL USE ONLY

Received \$ \_\_\_\_\_ Date \_\_\_\_\_ By \_\_\_\_\_ Receipt No. \_\_\_\_\_

All following refer to Application No. \_\_\_\_\_ on the previous pages hereof.

APPRAISAL & DETERMINATION:

The Commissioner does hereby appraise the value of the water at \$ \_\_\_\_\_ PER ACRE FOOT (other unit \_\_\_\_\_) and establishes the minimum annual production to be \_\_\_\_\_ units.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

STATE LAND DEPARTMENT

STATE LAND COMMISSIONER

ORDER AUTHORIZING SALE:

The Department does hereby authorize the sale of the subject water according to the provisions of the law in such cases made, utilizing the values set forth above, with special conditions as follow:

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

STATE LAND DEPARTMENT

STATE LAND COMMISSIONER

ORDER REJECTING APPLICATION AND DISSOLVING SALE:

The Commissioner and the Department being fully advised in the premises find that it is not in the best interest of the State of Arizona to sell the water described in the application on the reverse hereof.

THEREFORE IT IS ORDERED that the application is hereby denied and, where applicable, that the proposed sale thereof is hereby dissolved.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

STATE LAND DEPARTMENT

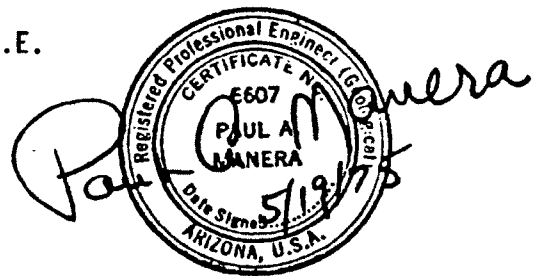
STATE LAND COMMISSIONER

HYDROLOGIC INVESTIGATION  
OF THE  
TUNGSTONA WELLS

for  
Cyprus Bagdad Copper Company

by  
Paul A. Manera, P.E.

May 19, 1975



MANERA & ASSOCIATES, INC.

GROUND WATER INVESTIGATIONS

ELECTRICAL RESISTIVITY SURVEYS

PDC000171

## INTRODUCTION

### Location

The Tungstona Wells are located in Warm Spring Wash approximately five air miles northeast of Bagdad, Arizona. The legal description of the Tungstona Wells is the NE $\frac{1}{4}$  NE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 24, T. 15 N., R. 9 W., as shown on Figure 1.

## GEOLOGY

### General

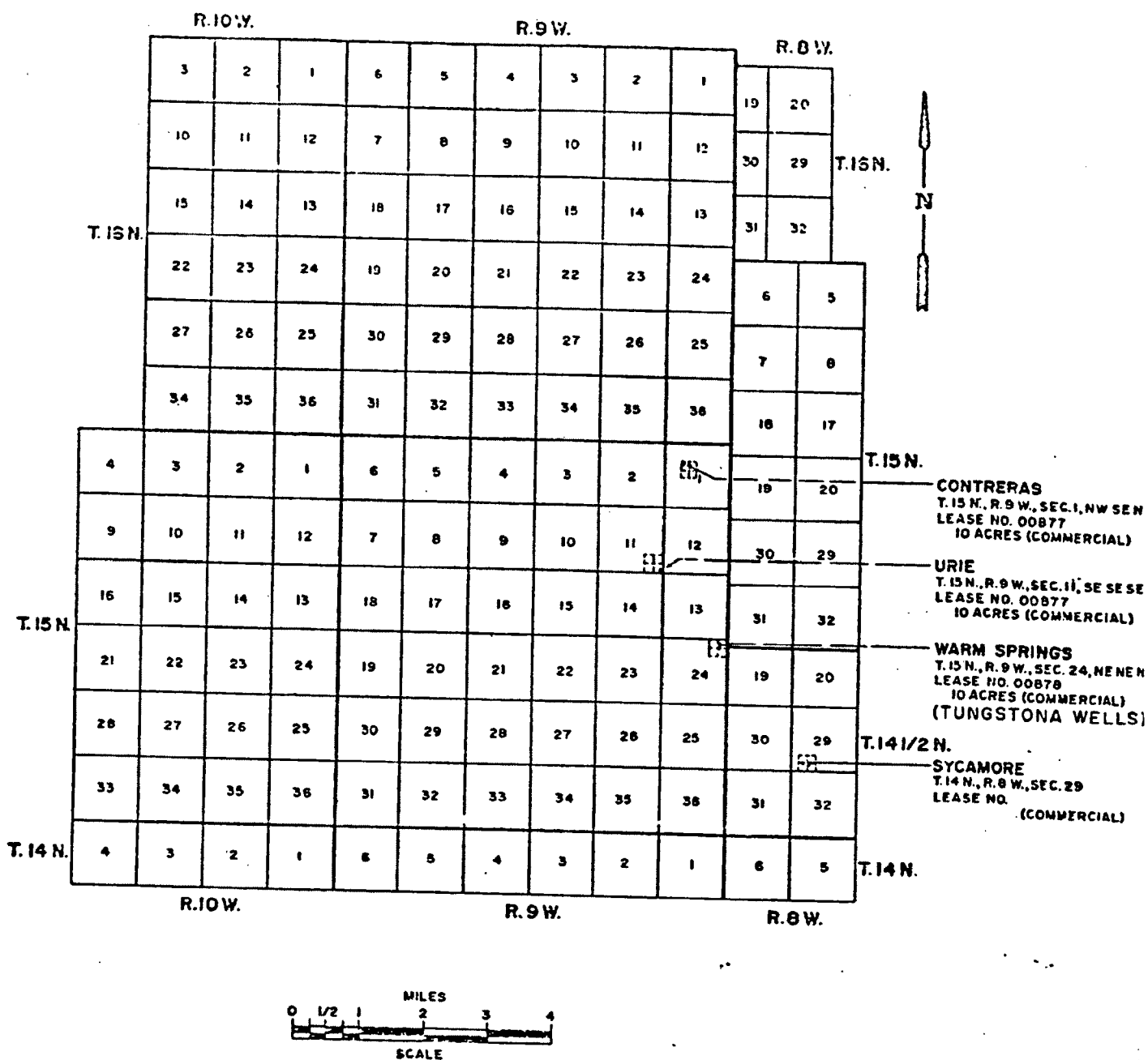
Warm Spring Creek is an entrenched stream cut into the Lawler Peak granite. Warm Spring Creek is a relatively short stream of approximately one mile in reach. In the upper half of the stream reach the Lawler Peak granite on each side of the creek is covered by the Gila conglomerate or the Sanders basalt.

### Structure

A fault cuts across Warm Spring Creek near the northeast corner of Section 24, T. 15 N., R. 9 W. The strike of the fault is N 23° W with a dip of 79° to 85° south. The primary fault is shown on Figures 2 and 3. Above the fault, i.e. northeast of the fault, the granite is relatively solid with few fractures. Downstream from the primary fault is a large crush zone with numerous parallel secondary faults and fractures.

An electrical resistivity survey run down the streambed indicated that the secondary faulting and fracture crush zone extends downstream in excess of 500 feet.





# CYPRUS - BAGDAD COPPER COMPANY WATER WELL SITES

FIGURE 1

## HYDROLOGY

### Warm Springs

Warm Springs issue from the fault and fracture crush zone downstream from the primary fault. The springs were actually a series of seeps which continuously added to the flow of Warm Springs Creek. The fracture zone is the hydraulic conduit supplying the springs and the wells.

### Wells

Three wells were drilled downstream from the primary fault with Tungstona Well 1 nearest the fault and Tungstona Well 3 furthest downstream. The well schedules and drillers' logs are included in the appendix.

### Well Yield

Table 1 shows that characteristics of the Tungstona Wells.

Table 1

Tungstona Well No.	Total Depth (feet)	Original Production (gpm)	Drawdown (feet)	Date	Production, gpm 1971 and thereafter
1	228	280	38	5/13/60	Abandoned
2	250	195	134	ca12/65	65
3	522	540	55	8/14/62	290

Originally, Well 1 produced 280 gpm. When Well 2 was put into production the yield of Well 1 decreased and when Well 3 was completed, Well 1 was abandoned.

Well 3 can be pumped continuously at the rate of 280 gpm without fluctuation. Well 2 can be pumped at a rate of 200 gpm for eight hours every 24 hours. However, if Well 3 is not pumping, Well 2 can be continuously pumped at the rate of 200 gpm.

During the period 1971 - 1974 the withdrawal from the Tungstona Wells was:

Table 2

Year	Total Gallons	Withdrawal acre-feet (rounded)	Average gpm
1971	148,816,000	457	283
1972	45,026,000	138	86
1973	37,176,000	114	71
1974	65,931,000	202	125

#### CONCLUSION

Actual withdrawal extends back to 1958. The historical continuity of production indicates that a continued withdrawal of 340 gpm is a pragmatic projection of the water supply available from Tungstona Wells 2 and 3.



The decline in the withdrawal rate shown in Table 2 is a result of less demand rather than a decline in yield of the Tungstona Wells. The construction of the pipeline from Francis Spring and the large volume of water available has temporarily reduced the demand on the Tungstona Wells, Urie Well and Contreras Well.

The projected longevity of the supply is of long, but unknown, duration. It is believed that twenty years is a minimum longevity.

APPENDIX A  
Well Schedule and Logs



## WELL SCHEDULE

WELL No. (B-15-9)24aaa

Tungstona Well 1

Recorded by BB Source of data SLD Date 7-20 19 71

State Arizona County Yavapai Topographic Map Bagdad 15'

T. 15 N 8 R. 9 E W Section 24 NE 1/4 NE 1/4 NE 1/4 G. & S. R.  
B&M

Owner Bagdad Copper Corp. Address Bagdad, Arizona

Driller Roscoe G. Jarvis

Address

## Surface

## Method

Altitude \_\_\_\_\_ Drilled Cable Rotary Reverse Rotary Air Rotary

Total Depth 228 ft. Measured, Reported, Date drilled 5-13 19 60

Date well deepened \_\_\_\_\_ 19 \_\_\_\_\_ Total Depth \_\_\_\_\_ ft.

Casing Diameter 10 inches 0 to 228 ft \_\_\_\_\_ inches \_\_\_\_\_ to \_\_\_\_\_ ft \_\_\_\_\_ in \_\_\_\_\_ to \_\_\_\_\_ ft.

Perforations 30 to 228 ft to ft to ft.

Size opening 1/2" x 12" Cuts per foot 4

Major Aquifer \_\_\_\_\_ Minor Aquifer \_\_\_\_\_

## Projects

## PUMPING DATA

[illegible]

## CHEMICAL ANALYSES

[illegible]

**MANERA & ASSOCIATES, INC.**

## GROUND WATER INVESTIGATIONS

## ELECTRICAL RESISTIVITY SURVEYS

**PDC000178**

# DRILLER'S LOG

Bagdad Copper Corporation

NE $\frac{1}{4}$  NE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 24, T. 15 N., R. 9 W.

0 - 20feet	decomposed granite - soft
20 - 37	decomposed granite - soft - water
37 - 62	(increased water) soft caving
62 - 65	granite - hard
65 - 80	decomposed granite - soft
80 - 110	granite - hard with narrow soft seams
110 - 117	decomposed granite - soft and sandy (increased water)
117 - 146	granite - hard with soft seams
146 - 148	decomposed granite - soft and sandy
148 - 170	granite - hard
170 - 175	decomposed granite - soft
175 - 180	granite - hard
180 - 212	decomposed granite - soft and sandy
212 - 228	granite - hard

Hole drilled in granite fault zone

## WELL SCHEDULE

WELL No. (B-15-9)24aaa

Source of data SLD Date 7-20 19 71 Tungstona Well 2  
 Recorded by BB  
 State Arizona County Yavapai Topographic Map Bagdad 15'  
 T. 15 N & R. 9 W Section 24 NE 1/4 NE 1/4 NE 1/4 B&M  
 Owner Bagdad Copper Corp. Address Bagdad, Arizona  
 Driller Bagdad Copper Corp. Address Bagdad, Arizona  
 Surface Method  
 Altitude                      Drilled Cable Rotary Reverse Rotary Air Rotary  
 Total Depth 250 ft. Measured, Reported, Date drilled Dec. 19 59  
 Date well deepened June 19 63 Total Depth                      ft.  
 Casing Diameter 12 inches 0 to 250 ft                      inches                      to                      ft in                      to                      ft.  
 Perforations 100 to 250 ft                      to                      ft to                      ft.  
 Size opening 1/2 x 4 Cuts per foot 6  
 Major Aquifer                      Minor Aquifer                     

## Projects

## PUMPING DATA

Date	when drilled	12/65											
Source data	SLD	SLD	SLD										
SWL	10	55											
Altitude WL													
Discharge gpm			195										
Drawdown feet			134										
Specific Capacity													
Perforated Interval													
Formation Coefficient													

## CHEMICAL ANALYSES

Date													
Source data													
Conductivity													
Total Soluble salts													
Total Hardness													
Calcium													
Magnesium													
Sodium computed													
Carbonates													
Bicarbonates													
Chlorides													
Sulfates													
Nitrates													
Fluorides													
Boron													
Chromium													



MANERA &amp; ASSOCIATES, INC.

GROUND WATER INVESTIGATIONS

ELECTRICAL RESISTIVITY SURVEYS

PDC000180



DRILLER'S LOG

Bagdad Copper Corporation

NE $\frac{1}{4}$  NE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 24, T. 15 N., R. 9 W.

0 - 250feet      decomposed granite



## WELL SCHEDULE

WELL No. (B-15-9)24aaa

Tungstona Well 3

Recorded by BB Source of data SLD Date 7-20 1971

State Arizona County Yavapai Topographic Map Bagdad 15'

T. 15 N 8 R. 9 W Section 24 NE 1/4 NE 1/4 NE 1/4 B&M

Owner Bagdad Copper Corp. Address Bagdad, Arizona

Driller Bagdad Copper Corp. Address Bagdad, Arizona

Surface Method churn

Altitude 3870 Drilled Cable Rotary Reverse Rotary Air Rotary

Total Depth 522 ft. Measured, Reported, Date drilled 8-10 1962

Date well deepened 19 Total Depth ft.

Casing Diameter 12 inches 0 to 504 ft inches to ft in to ft.

Perforations 0 to 504 ft to ft to ft.

Size opening 1/2 x 4 Cuts per foot 6

Major Aquifer Minor Aquifer

Projects

## PUMPING DATA

Date	when drilled	8/14/62																		
Source data	SLD	SLD																		
SWL	492	30																		
Altitude WL																				
Discharge gpm		540																		
Drawdown feet		55																		
Specific Capacity Perforated Interval																				
Formation Coefficient																				

## CHEMICAL ANALYSES

Date																				
Source data																				
Conductivity																				
Total Soluble salts																				
Total Hardness																				
Calcium																				
Magnesium																				
Sodium computed																				
Carbonates																				
Bicarbonates																				
Chlorides																				
Sulfates																				
Nitrates																				
Fluorides																				
Boron																				
Chromium																				



MANERA &amp; ASSOCIATES, INC.

GROUND WATER INVESTIGATIONS

ELECTRICAL RESISTIVITY SURVEYS

PDC000182

# DRILLER'S LOG

Bagdad Copper Corporation

NE $\frac{1}{4}$  NE $\frac{1}{4}$  NE $\frac{1}{4}$  Section 24, T. 15 N., R. 9 W.

0 - 45feet	soft decomposed granite
45 - 88	soft decomposed granite, boulders, cavey
88 - 134	soft decomposed granite
134 - 138	soft decomposed granite - sand
138 - 170	soft decomposed granite
170 - 175	clay and sand
175 - 185	sand - cavey
185 - 190	boulders and sand
190 - 194	hard granite
194 - 202	sand
202 - 210	hard granite
210 - 215	sand
215 - 221	sand and boulders
221 - 232	hard granite
232 - 237	soft decomposed granite
237 - 270	hard granite
270 - 290	soft decomposed granite
290 - 332	hard granite
332 - 360	hard and soft seams
360 - 397	soft decomposed granite
397 - 415	hard granite
415 - 522	soft decomposed granite

## INSTRUCTIONS

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3. Attach additional pages, if necessary.
4. Filing fee of \$50.00 must be paid at the time this application is submitted.

## ARIZONA STATE LAND DEPARTMENT

1624 West Adams

Phoenix, Arizona 85007

## APPLICATION FOR THE COMMISSIONER TO AUCTION WATER FROM STATE LANDS

APPLICANT INFORMATIONI/we Cyprus Mines Corporation

(name)

of Post Office Box 245, Bagdad, Arizona 86321

(address)

do hereby make application for the auction of water under the lands hereinafter described, in accordance with the provisions of the law of the State of Arizona, the rules and regulations of the State Land Department, the provisions of the surface lease, easement or permit, and provisions of the Water Agreement.

Subdivision	Section	Township	Range	Acreage	County
SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$	17	13N	9W	10	Yavapai

1. State whether individual, partnership or corporation. corporation
2. If individual, state: Age n/a Sex        Marital Status
3. If corporation, give State in which incorporated. Delaware  
Is the corporation authorized to do business in Arizona? yes
4. If a partnership, state the names and addresses of each partner.  
n/a
5. Would the rights under a Water Agreement be held in trust for anyone other than the applicant? No If yes, please attach a certified recorded copy of the trust agreement showing the name, address, age, citizenship and marital status of each beneficiary, principal or ward.

I hereby certify under the penalty of perjury, that the information contained and statements herein made are, to the best of my knowledge and belief, true, correct, and complete.

Dated this 15th day of March, A.D., 1986.

Cyprus Mines Corporation  
Applicant

By

C.W. Reno, VP and General Manager

THE FOLLOWING IS NOT TO BE FILLED IN BY APPLICANT:

Fees Received: <u>      </u>	Receipt No. <u>      </u>	Recorded by: <u>      </u>
Date of Contract <u>      </u>	Approved or denied by <u>      </u>	
Cause of Denial <u>      </u>	Date: <u>      </u>	

STATE LAND AND HYDROLOGIC INFORMATION

6. By this application, applicant applies for 140,160,000 gallons ~~or more~~ ~~less~~ of groundwater per year for the ten year period beginning June 7, 1986, and ending June 6, 1989, which if successful bidder at auction, the applicant proposes to use for domestic, municipal and industrial purposes (purpose).

7. (a) The water will be removed by the use of the presently existing wells which are located on the State lands as follows:

Location	Sec.	Twp.	Rge.	Depth	Pump H.P.	Capacity
<u>SW<sub>1</sub> SW<sub>1</sub> NW<sub>1</sub></u>	<u>17</u>	<u>13N</u>	<u>9W</u>	<u>473'</u>	<u>none</u>	<u>400</u> g.p.m.
<u>  "  "  "</u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u> g.p.m.
<u>  "  "  "</u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u> g.p.m.

- (b) Are the wells described in subsection (a) located on lands within an Active Management Area or an area designated as Irrigation Non-expansion (hereafter respectively "AMA" and "INA") as defined in the 1980 Groundwater Management Act (hereafter "Act")?

No

If so, indicate which AMA or INA: n/a

If applicable, is there a grandfathered water right associated with the groundwater sought to be purchased by reason of this application? no

If so, what is the type and anticipated amount of grandfathered water rights? n/a

8. (a) If applicable, the sale of the water will require the following described new wells:

Location	Sec.	Twp.	Rge.	Depth	Pump H.P.	Capacity
<u>  "  "  "</u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u> g.p.m.
<u>  "  "  "</u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u> g.p.m.
<u>  "  "  "</u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u> g.p.m.

- (b) Will the wells described in Subsection (a) be located on lands within an AMA or INA? no

If so, indicate which AMA or INA: n/a

Will the drilling of any such wells and withdrawal of groundwater therefrom require the issuance of a groundwater withdrawal permit under the Act? no

Will any of the wells described in Subsection (a) be drilled and used as a replacement for any other well? no. If so, which is the replacement well:   . Describe the well to be replaced and explain the need for its replacement:   

9. The State lands from which the water is proposed to be withdrawn, and across which the water is to be transported, is subject to Lease Number 03-1393, issued to Cyprus Bagdad Copper Company

10. There are no known mineral claims, abandoned workings, minerals, oil, gas, fertilizer or fossils upon the land deferred to in questions 7, 8, 9 and

13 except: None

11. The presently existing improvements which are anticipated to be necessary for the withdrawal and transportation of the water, the public auction of which is sought hereby, include:

water well casing (not in use)

and are owned by Cyprus Mines Corporation

12. The following described new improvements will be required in addition to the wells:

n/a

13. (a) The water will be used upon the following described lands:

Sub.				Section	Twp.	Rge.	County
S $\frac{1}{2}$				2	14N	9W	Yavapai
S $\frac{1}{2}$	<del>xx</del>	<del>xx</del>	<del>xx</del>	3	14N	9W	Yavapai
N $\frac{1}{2}$	<del>xx</del>	<del>xx</del>	<del>xx</del>	10	14N	9W	Yavapai
NW $\frac{1}{4}$	<del>xx</del>	<del>xx</del>	<del>xx</del>	11	14N	9W	Yavapai

- (b) In transporting the water from the place of withdrawal to the place of use described in subsection (a) of this question, will the water be transported across basin or subbasin boundaries? yes

If yes, explain:

- (c) Are the lands described in subsection (a) located within an AMA or INA? no. If so, indicate which AMA or INA: \_\_\_\_\_

If applicable, is there a grandfathered water right associated with the land upon which the water is proposed to be used? n/a

If yes, what is the anticipated type and amount of the grandfathered water right? n/a

Are the lands described in Subsection (a) located within the service area of, or served by, any public or private water company or utility? no. If yes, explain: \_\_\_\_\_

Do the lands described in Subsection (a) qualify for water to be made available by reason of the Central Arizona Project? no. If yes, explain the type of qualification, by whom the water will be delivered and the amount of the present allocation of Central Arizona Project water to the person or entity to deliver the water:

14. Is applicant aware of any impediment to the withdrawal, transportation, or use of the groundwater as described in this application existing by reason of the Act or any other law which may affect the legality of the sale applied for herein? No

If yes, explain:

---

---

15. Attach a hydrology report which shows that the amount of water sought to be purchased is available.
16. Using the plat on the following page, identify the locations of whichever of the following are applicable:
- (a) Presently existing wells;
  - (b) Proposed new wells;
  - (c) Presently existing improvements other than wells;
  - (d) Proposed new improvements other than wells;
  - (e) Access routes, including description and dimensions;
  - (f) Basin or subbasin boundaries;
  - (g) Land upon which water is proposed to be used; and
  - (h) Land ownership,

If this application is approved and an auction is held, any resulting access route will be subject to the laws of the State of Arizona, the Rules and Regulations of the Department, the provisions and conditions contained in the Water Agreement, and the provisions and conditions contained in the appropriate surface lease, easement or permit which buyer must acquire from the Arizona State Land Department. Neither the making of this application, acceptance by the Arizona State Land Department of this application or filing fee, a water agreement nor subsequent issuance if any surface lease, easement or permit for withdrawal or transportation of the water purchases should be considered as an approval or suggestion of any kind whatsoever of an access route over any private, federal, Indian or other lands.

#### ACKNOWLEDGMENT

By the signature below, the applicant acknowledges and recognizes that neither the making of this application nor the acceptance by the Arizona State Land Department of this application or the filing fee submitted herewith in any way gives to or vests in the applicant any right or entitlement to any water or use of State land for which this application is made.

#### VERIFICATION

By signing this application, I/We hereby certify to the Department under penalty of perjury that the statements made and information contained in this application, and in all supplemental information attached hereto, are full, true, correct and complete to the best of my/our knowledge and (if applicable) further certify that I/We am/are legally authorized to make this application for and on behalf of the persons described herein.

DATED March 15, 1986

BY

C.W. Reno Signature(s)

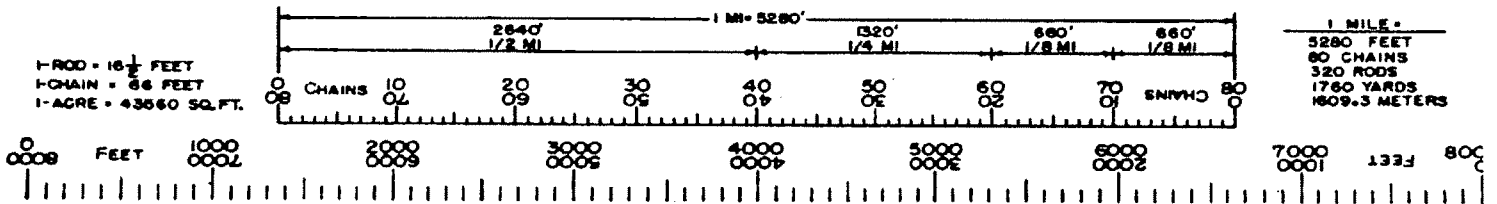
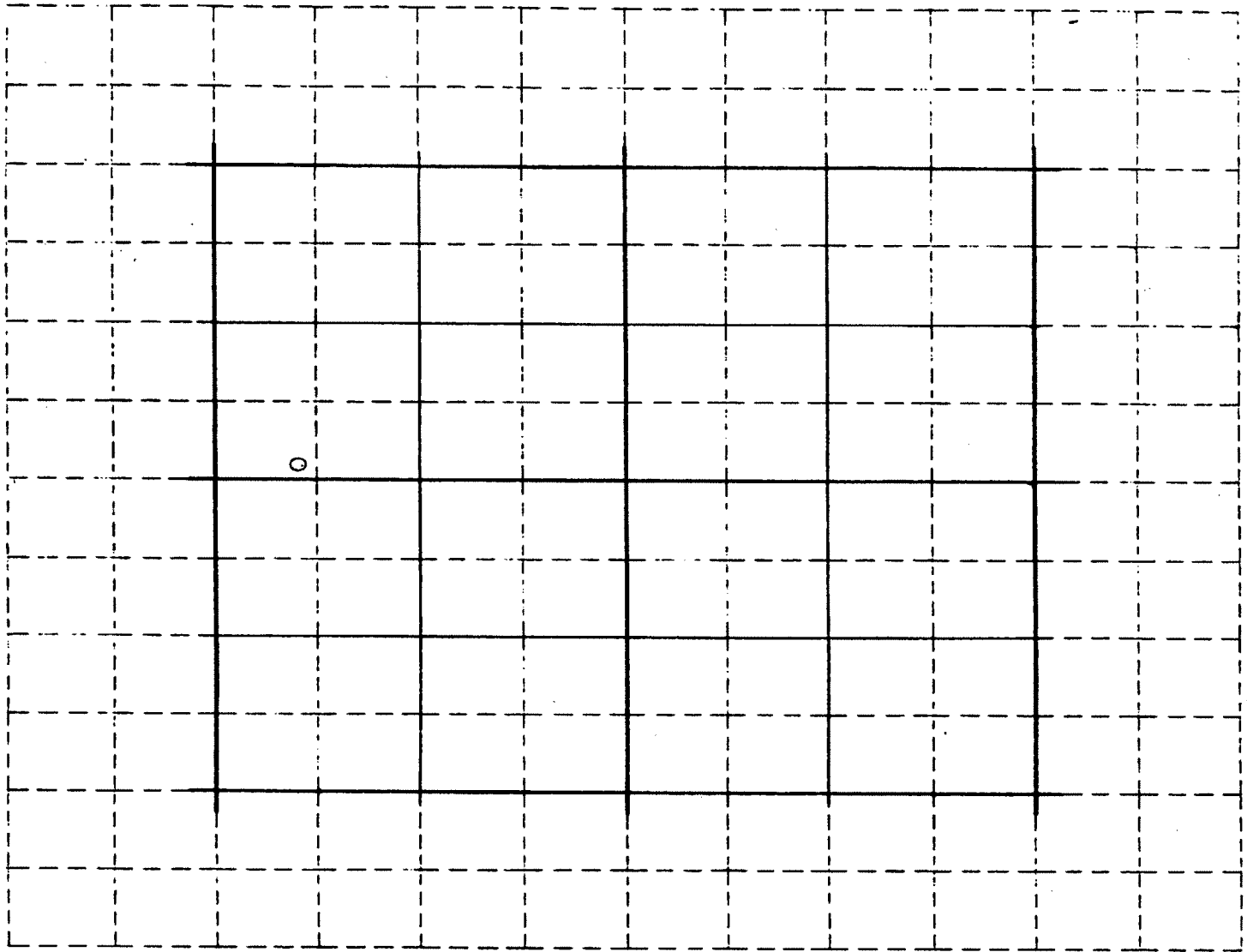
If applicant is other than individual, indicate:

VP and General Manager

(Title of person signing)

SEC. 17 TWP. 13N  
RGE. 9W

ARIZONA STATE LAND DEPT.



- |                     |                     |                     |               |
|---------------------|---------------------|---------------------|---------------|
| ⊕ windmill          | ⊕ elec. centrifugal | ○ abandon-open case | ◇ exploration |
| ⊕ elec. submersible | ⊕ liquid fuel       | ⊗ abandon-capped    | ⊗ artesian    |
| ⊕ elec. turbine     | ⊕ natural gas       | ⊙ plugged           |               |



FOR DEPARTMENTAL USE ONLY

Received \$ \_\_\_\_\_ Date \_\_\_\_\_ By \_\_\_\_\_ Receipt No. \_\_\_\_\_

All following refer to Application No. \_\_\_\_\_ on the previous pages hereof.

APPRAISAL & DETERMINATION:

The Commissioner does hereby appraise the value of the water at \$ \_\_\_\_\_ PER ACRE FOOT (other unit \_\_\_\_\_) and establishes the minimum annual production to be \_\_\_\_\_ units.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_.

STATE LAND DEPARTMENT

\_\_\_\_\_  
STATE LAND COMMISSIONER

ORDER AUTHORIZING SALE:

The Department does hereby authorize the sale of the subject water according to the provisions of the law in such cases made, utilizing the values set forth above, with special conditions as follow:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_.

STATE LAND DEPARTMENT

\_\_\_\_\_  
STATE LAND COMMISSIONER

ORDER REJECTING APPLICATION AND DISSOLVING SALE:

The Commissioner and the Department being fully advised in the premises find that it is not in the best interest of the State of Arizona to sell the water described in the application on the reverse hereof.

THEREFORE IT IS ORDERED that the application is hereby denied and, where applicable, that the proposed sale thereof is hereby dissolved.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_.

STATE LAND DEPARTMENT

\_\_\_\_\_  
STATE LAND COMMISSIONER

Hydrologic Investigation

of the

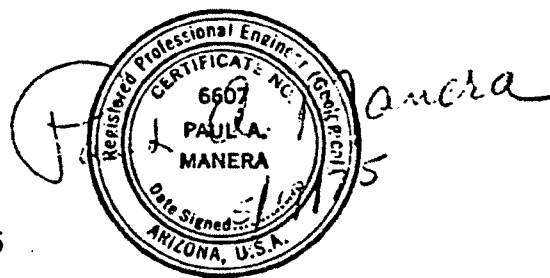
Skunk Creek Well Area

for

Cyprus Bagdad Copper Company

by

Paul A. Manera, P.E.



May 19, 1975

## INTRODUCTION

### Location

Skunk Creek Well is located in the SW $\frac{1}{4}$  SW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 17, T. 13 N., R. 9 W., as shown in Figure 1. The well is one fourth mile north of Arizona Highway 97, Yavapai County, Arizona.

### Historical Background

A geologic reconnaissance in late 1972 of the area around a windmill in Section 9, T. 13 N., R. 9 W., proved the existence of an alluvial basin approximately five miles long and two miles wide. The thickness of the alluvial fill was checked with an electrical resistivity survey. On the basis of this information Skunk Creek Well was drilled and tested in 1973. The well was capped and has not been in use since that time.

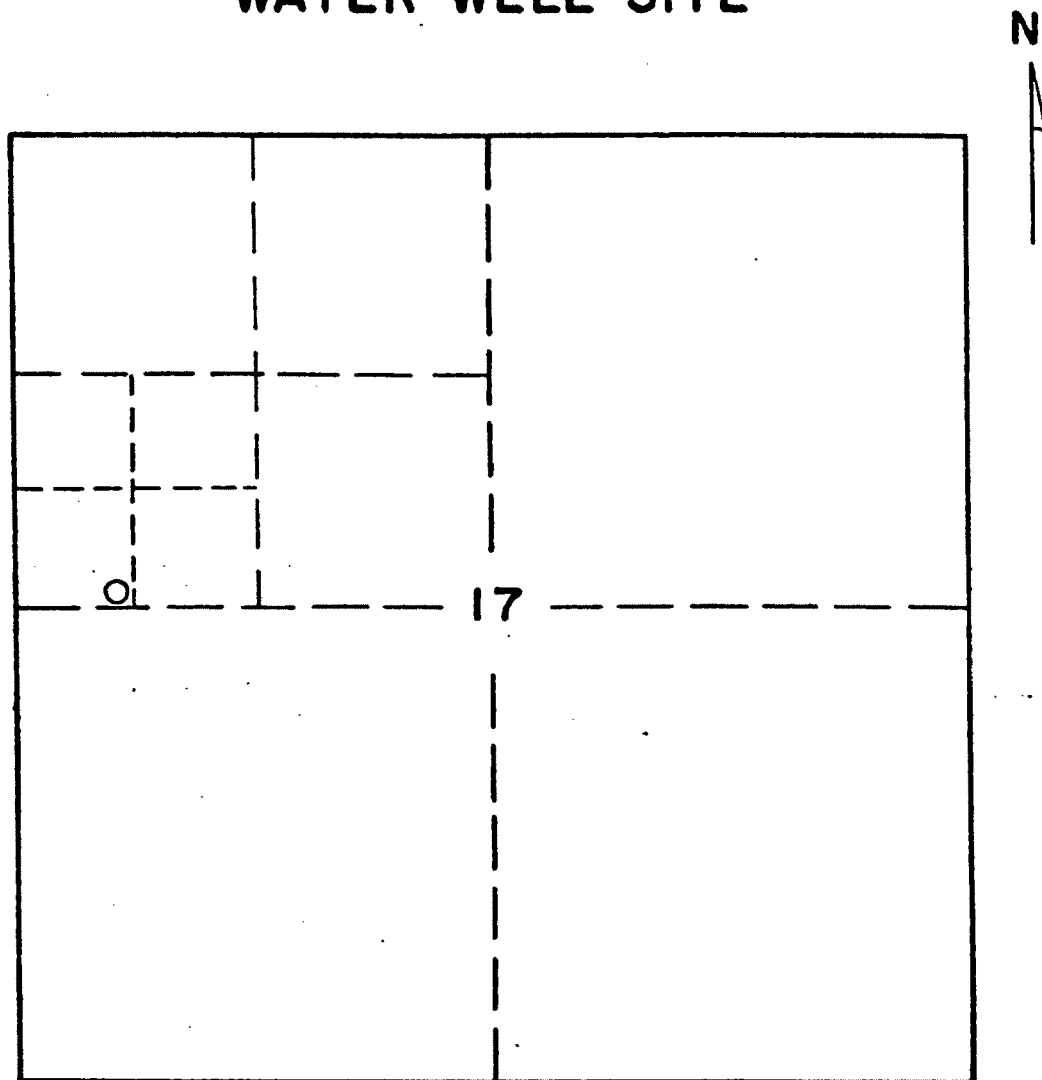
## GEOLOGY

### General

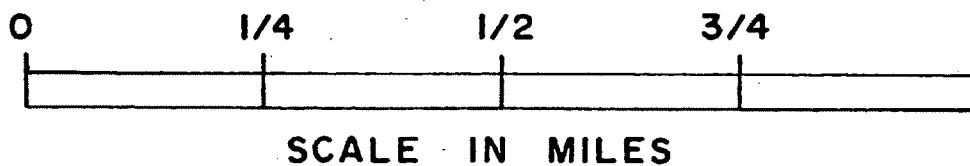
The alluvial basin is bounded on the south by granite and on the north by schist as shown on the geologic map of Yavapai County, Figure 2. Field mapping showed the presence of lakebed clays which had been highly eroded and the basin later aggraded with coarse detrital materials, shown on Figure 3.

The geophysical data (electrical resistivity) indicated that the thickness of the alluvial fill increased from 250 feet at the

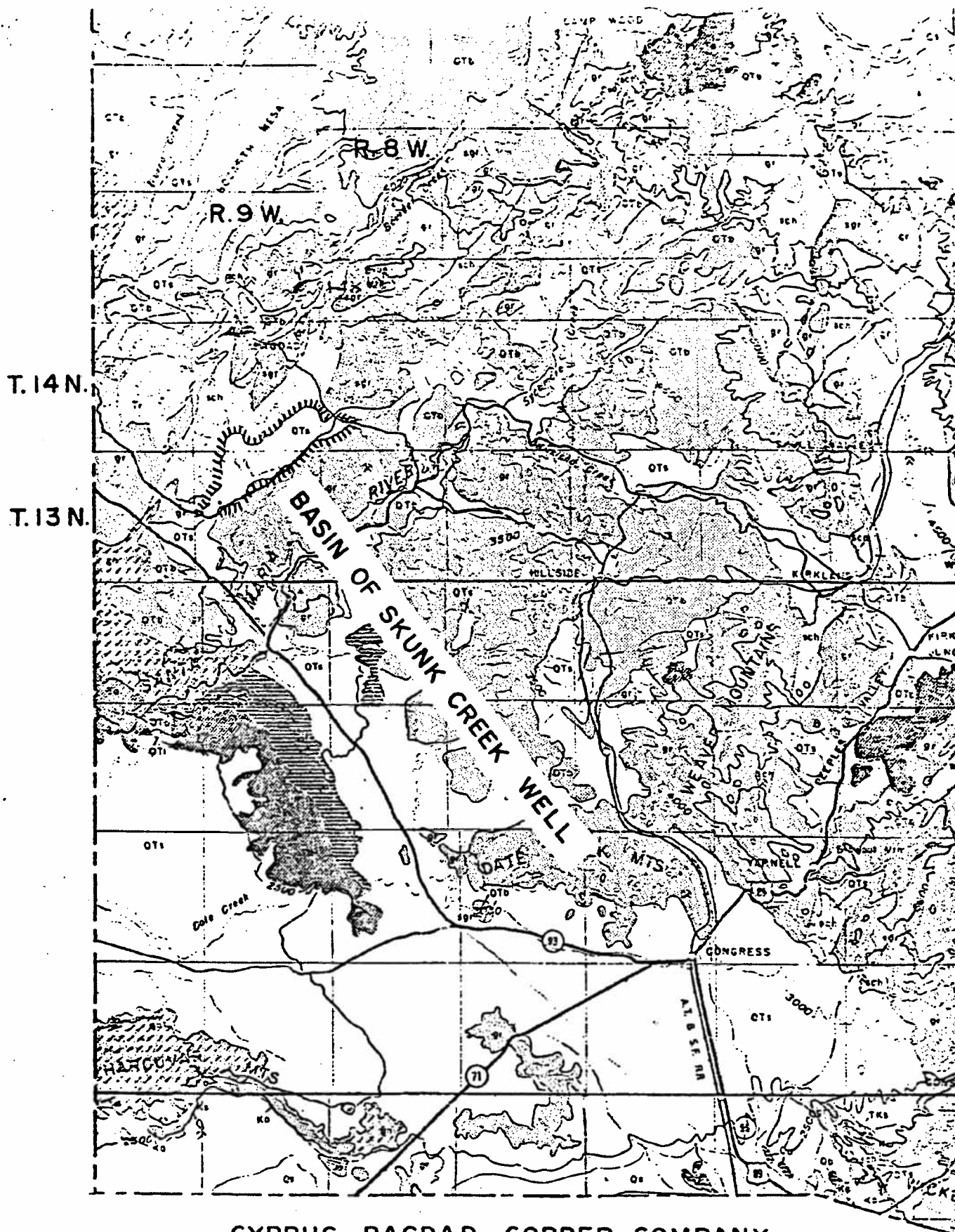
**CYPRESS BAGDAD COPPER COMPANY  
WATER WELL SITE**



**SKUNK CANYON (FUTURE SOURCE)  
T. 13 N., R. 9 W., SEC. 17, SW SW NW  
LEASE NO. 1393, 10 ACRES (COMMERCIAL)**



**FIGURE 1**



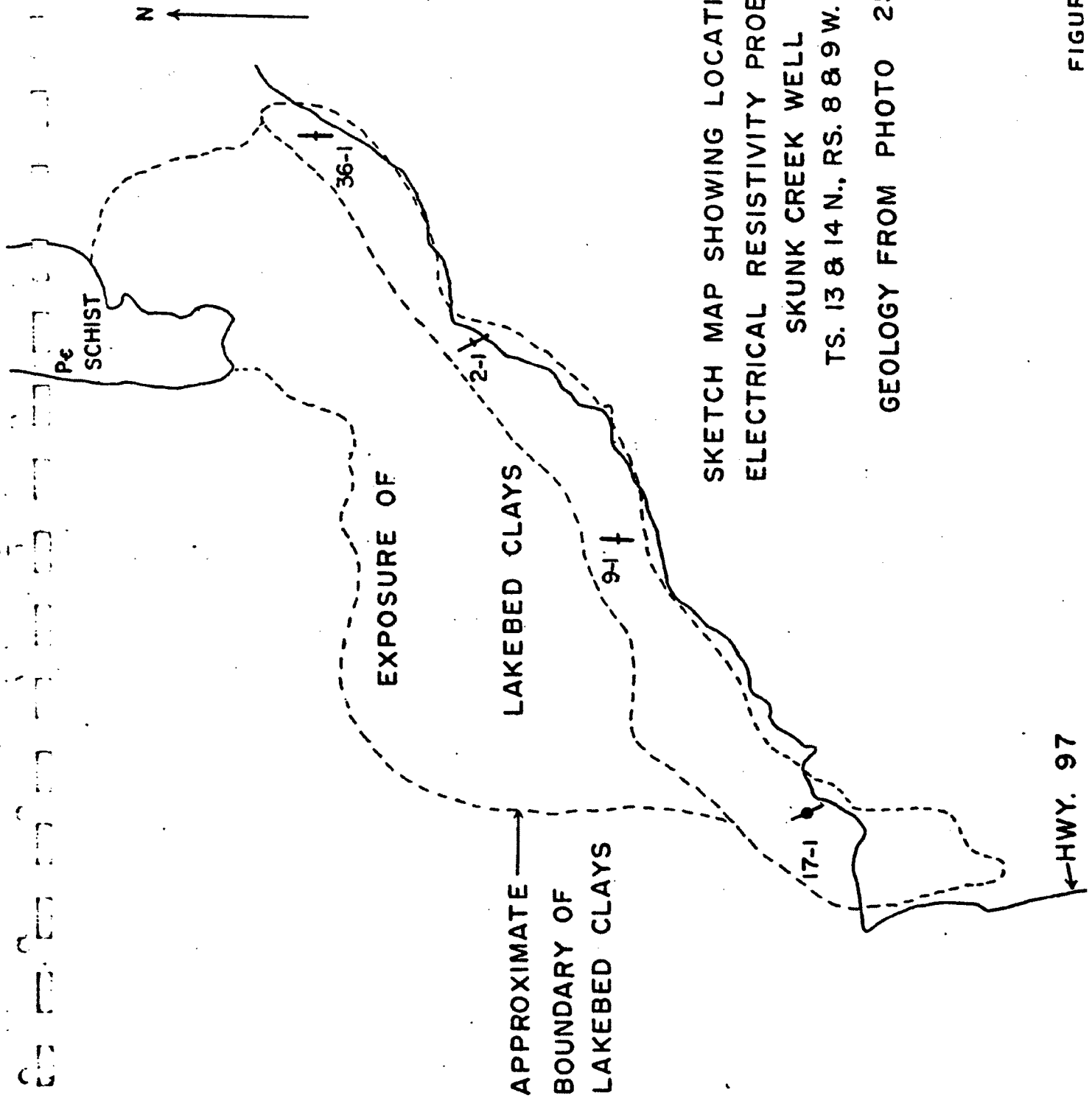
CYPRUS-BAGDAD COPPER COMPANY

GEOLOGIC MAP SHOWING BOUNDARY OF BASIN OF  
SKUNK CREEK WELL

SCALE: 1 INCH = 6 MILES

FIGURE 2

PDC000193



SKETCH MAP SHOWING LOCATIONS OF  
 ELECTRICAL RESISTIVITY PROBES AND  
 SKUNK CREEK WELL

TS. 13 & 14 N., RS. 8 & 9 W.

GEOLOGY FROM PHOTO 250

upper (northeastern) end to 550 feet at the lower (southwestern) end of the basin. The Skunk Creek Well was drilled to a total depth of 473 feet. At that depth the material was still a form of conglomerate, thus proving the general thickness range of the alluvial fill, as defined by the geophysics. The log of the drill cuttings and the well schedule are included as an appendix with this report.

## HYDROLOGY

### Static Water Level

The static water level on January 17, 1973 was 58 feet. The saturated thickness of the aquifer at the Skunk Creek Well was  $473 - 58 = 415$  feet.

### Pumping Tests

Three pumping tests were run on the Skunk Creek Well:

1. a 24 hour step test;
2. a ten day constant discharge test at 448 gpm; and
3. a ten day constant rate discharge test at 602 gpm.

The break at 500 gpm indicated by the step test data shown on Figure 4 indicates that the maximum long term yield of the well is below 500 gpm. To confirm this opinion the two ten day pumping tests were run, one at a discharge rate below 500 gpm and one above that rate of production. Figure 5 shows the stable pumping level at a production rate of 448 gpm and Figure 6 shows the continuously declining pumping level at a production rate of 602 gpm. The pumping test data sheets are included in the appendix.

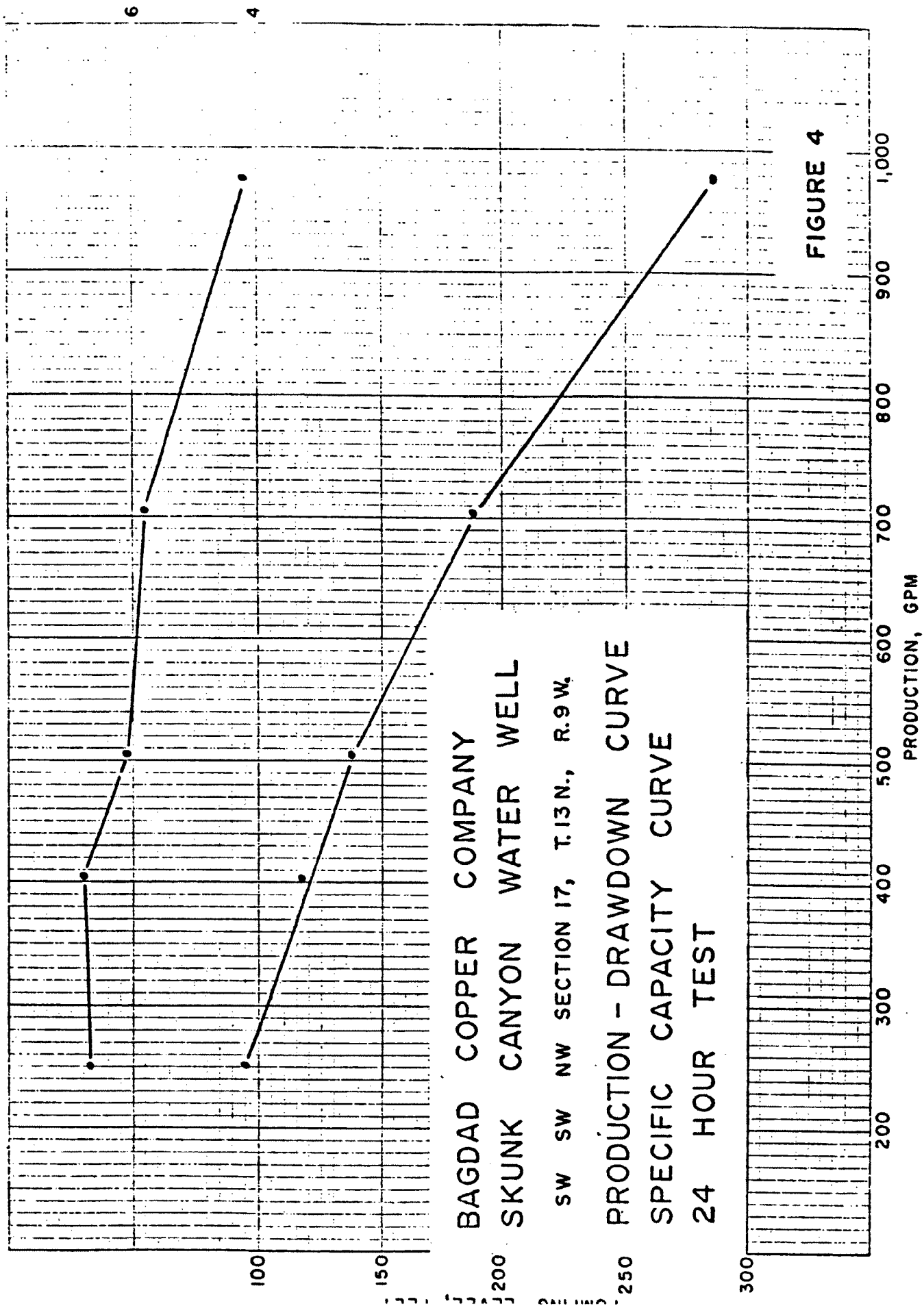


FIGURE 4



BAGDAD COPPER COMPANY  
SKUNK CANYON WATER WELL  
SW SW NW SECTION 17, T.13N., R.9W.

PUMPING LEVEL  
10 DAYS AT 448 GPM

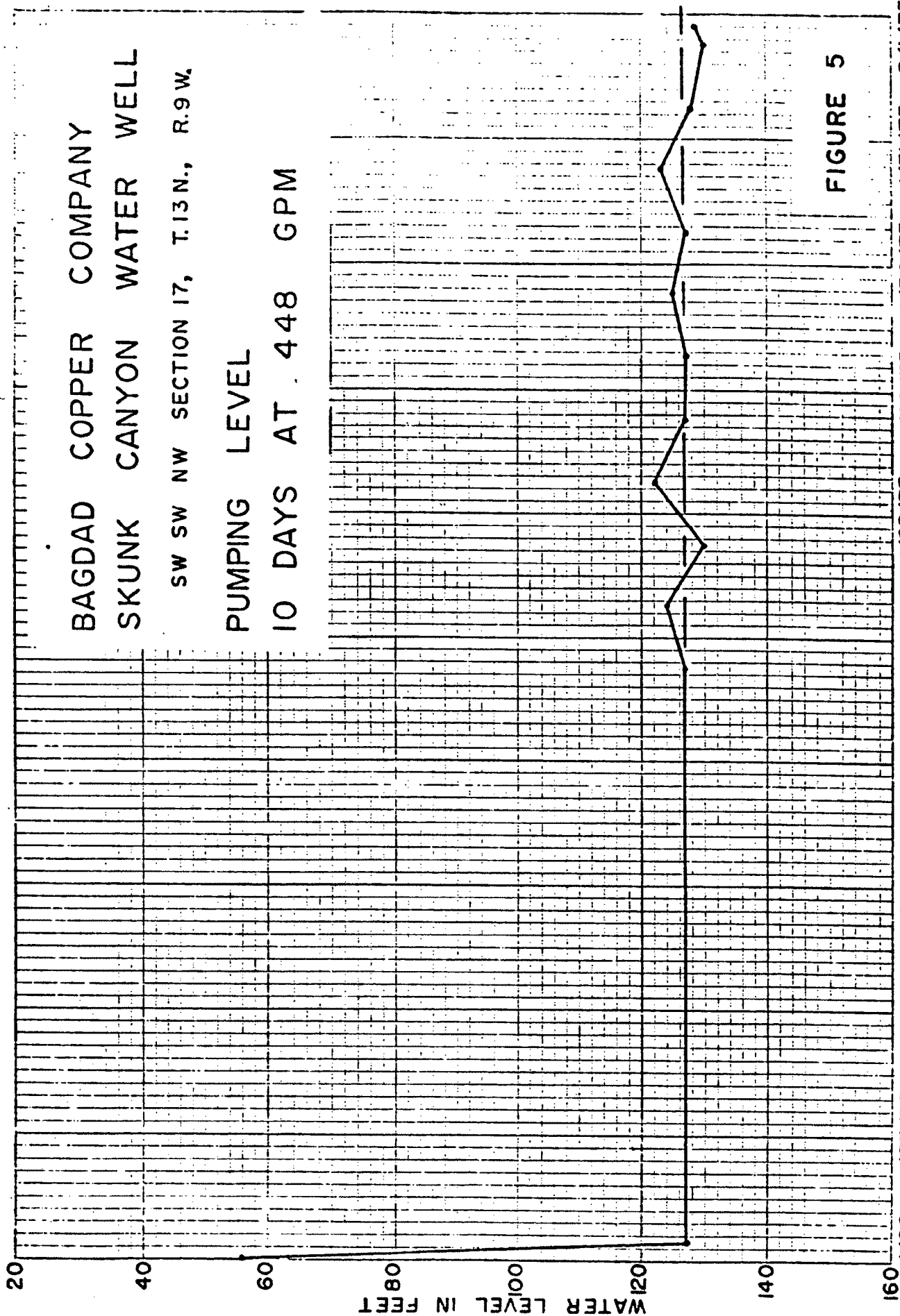
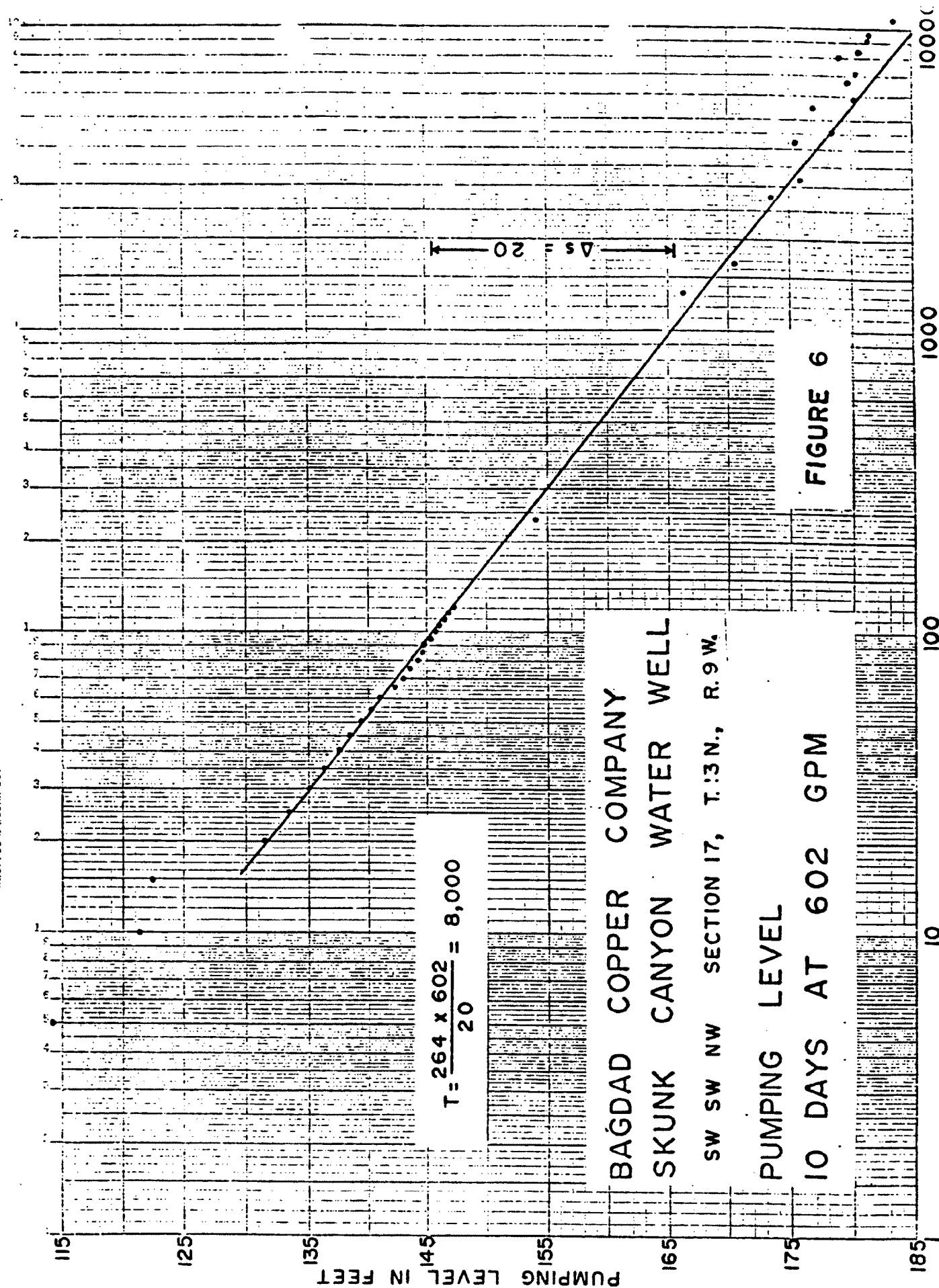


FIGURE 5

1/22 · 1/23/73 · 1/24/73 · 1/25/73 · 1/26/73 · 1/27/73 · 1/28/73 · 1/29/73 · 1/30/73 · 1/31/73 · 2/1/73



The recovery curves, Figures 7, 8 and 9 show that the transmissivity range of the aquifer(s) is 5,000 to 8,000 gallons per foot per day.

The aquifer transmissivity and the pumping test data indicate that a production rate of 400 gpm on a 16 hours on - 8 hours off duty cycle would be the most desirable for maximum longevity of the ground water supply.

#### Longevity of the Ground Water Supply

Using a tank analogy with a five mile by two mile basin and an assumed average thickness of saturated aquifer of 250 feet (less at the upper end and more at the lower end) would give a volume of saturated aquifer of

$$2 \times 5 = 10 \text{ square miles or}$$

$$640 \times 10 = 6,400 \text{ surface acres}$$

$$6,400 \times 250 = 1,600,000 \text{ acre-feet of reservoir volume.}$$

Assuming a porosity of 10 percent the volume of water in storage is:

$$1,600,000 \times 0.10 = 160,000 \text{ acre-feet.}$$

Using a practical recovery rate of 100,000 acre-feet of the 160,000 acre-feet in storage and a withdrawal rate of 1.18 acre-feet per day (400 gpm x 960 minutes) the longevity of the water supply would be

$$100,000 \div 1.18 = 4,746 \text{ days} \div 365 = 13 \text{ years.}$$

The 60,000 acre-feet left in storage and the recharge would act as a safety factor.

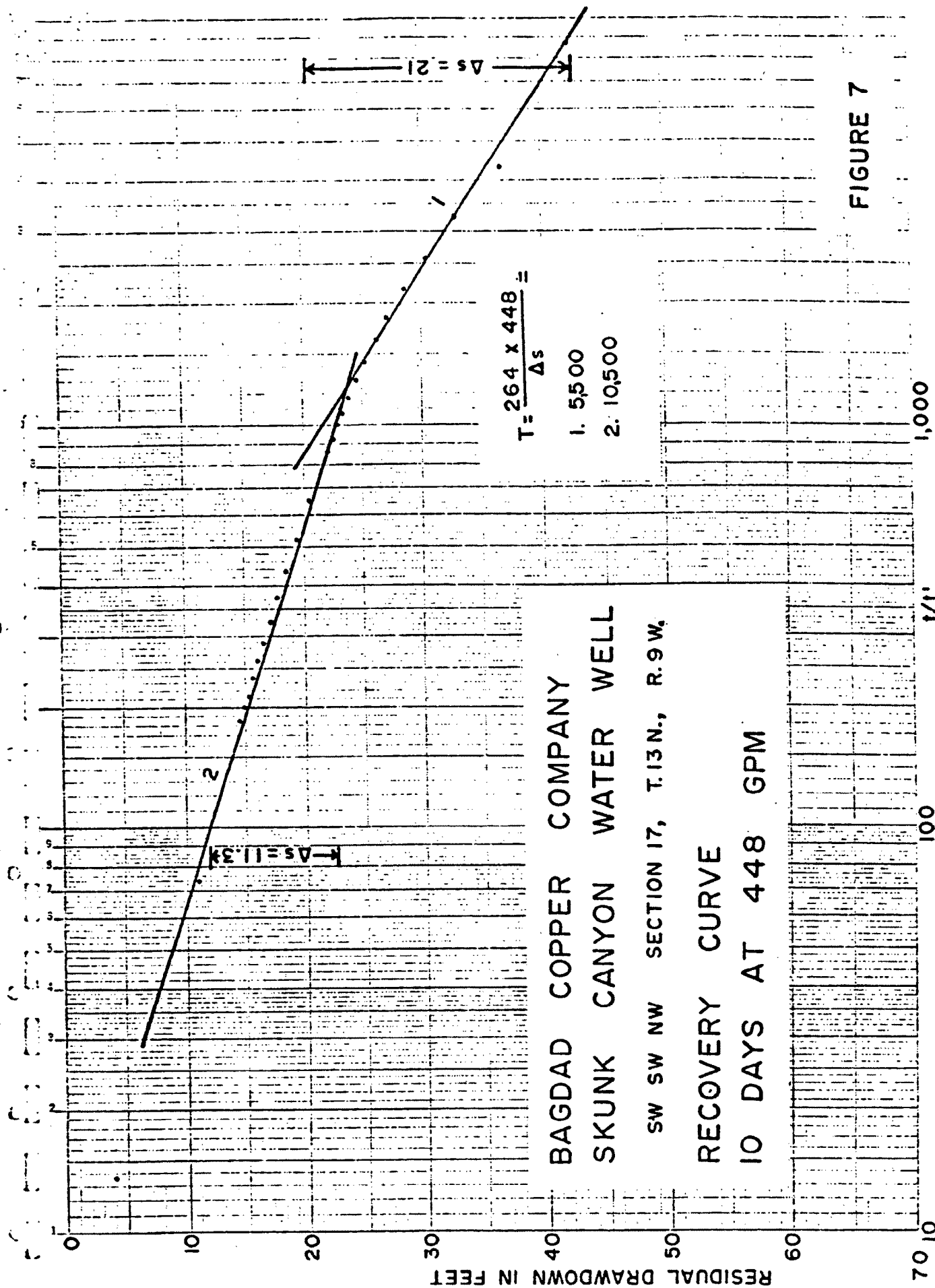
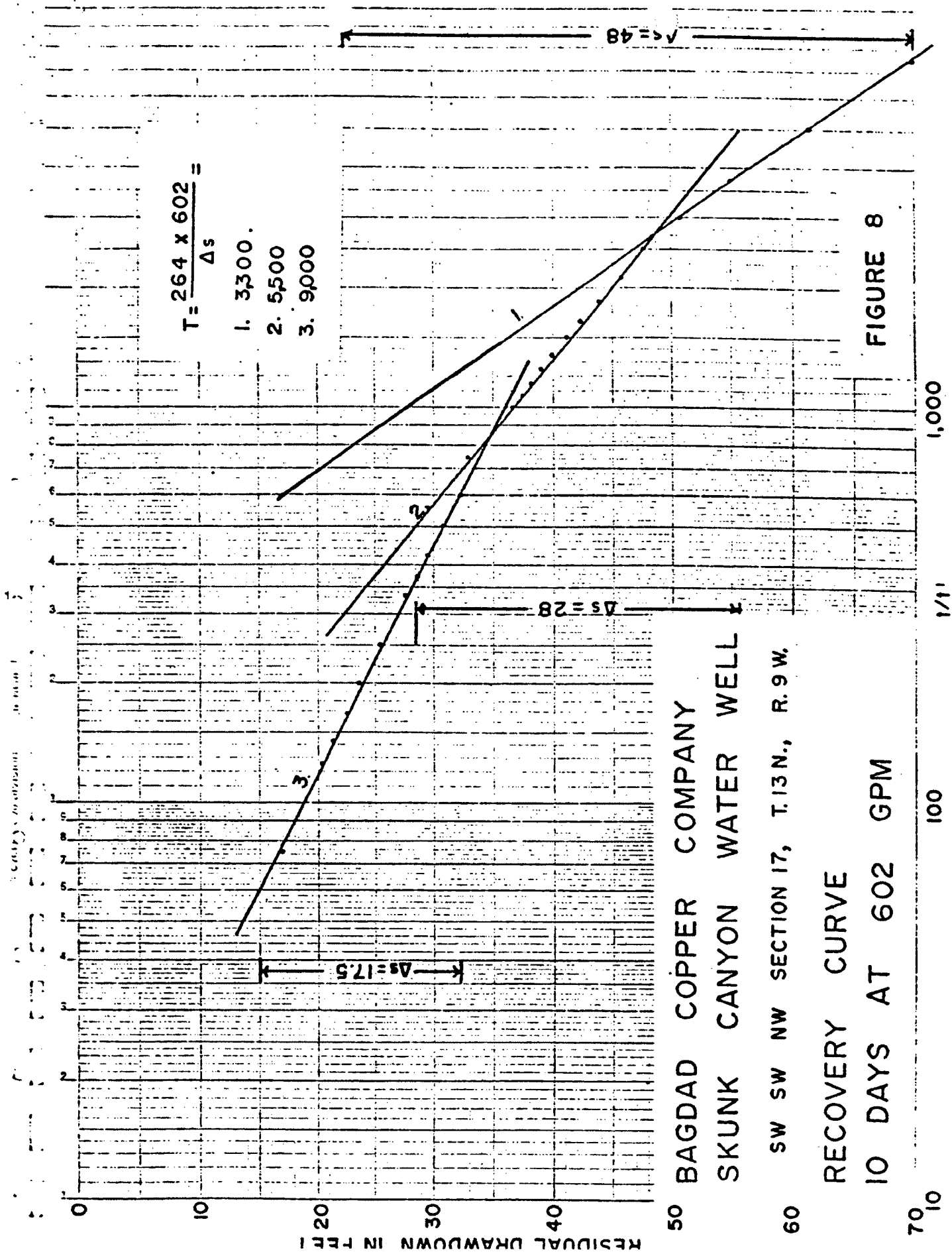
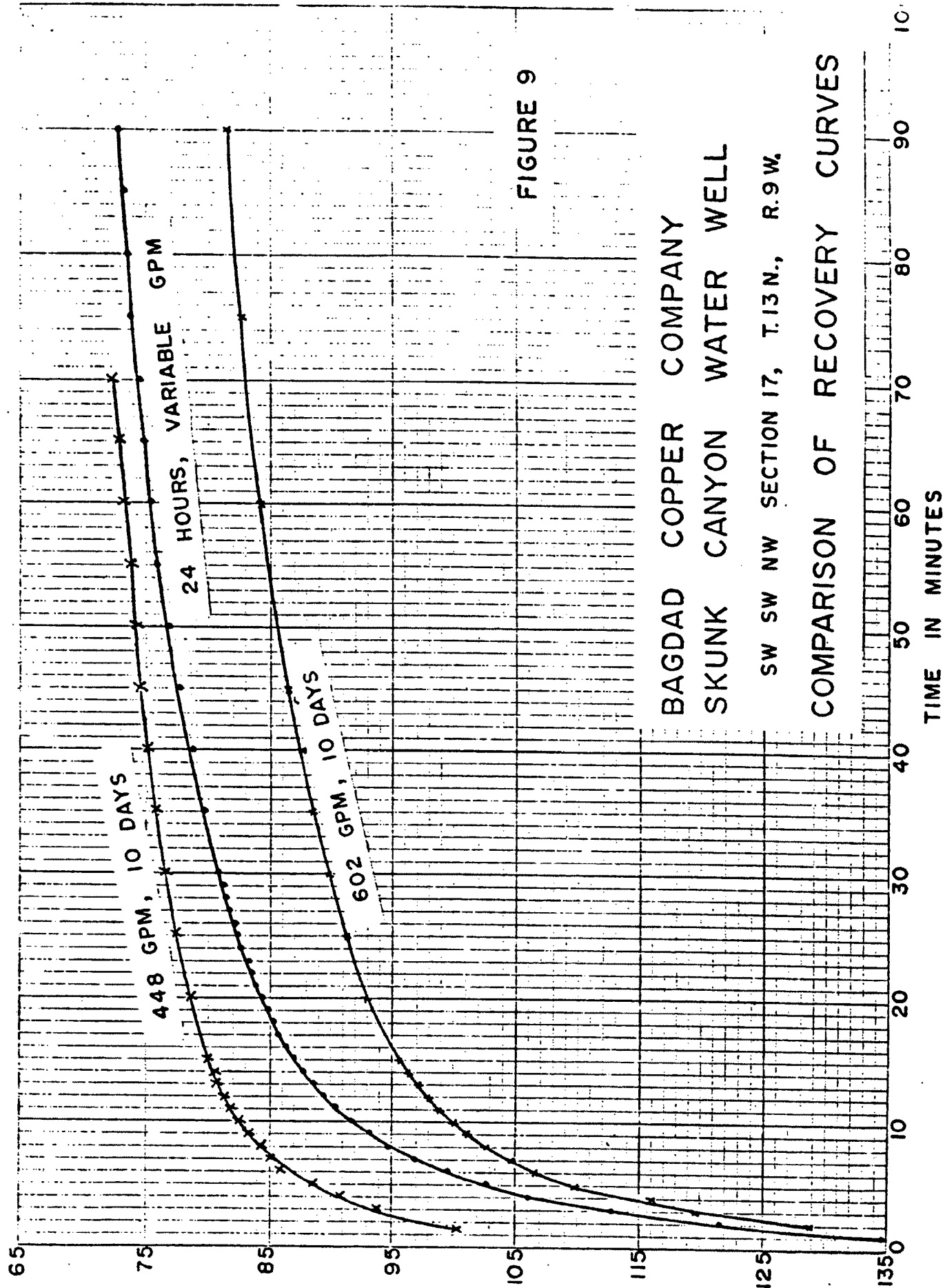


FIGURE 7





## CONCLUSION

A longevity of the water supply in the basin of the Skunk Creek Well will exceed 13 years at a withdrawal rate of 1.18 acre-feet per day (400 gpm for 960 minutes per day).

As the water in storage in the aquifer is withdrawn the pumping portion of the daily duty cycle may be increased to maintain the daily withdrawal of the 1.18 acre-feet per day.



APPENDIX A

WELL SCHEDULE AND LOG



## WELL SCHEDULE

WELL No. B(13-9)17bcc

Recorded by \_\_\_\_\_ Source of data SLD Date \_\_\_\_\_ 19 \_\_\_\_\_  
 State Arizona County \_\_\_\_\_ Topographic Map \_\_\_\_\_  
 T. 13 N & R. 9 E W Section 17 SW 1/4 SW 1/4 NW 1/4 B&M  
 Owner Bagdad Copper Corporation Address Box 245, Bagdad, AZ 86321  
 Driller Moss - Weber, Inc. Address P. O. Box 21305, Phoenix, AZ 85036  
 Surface \_\_\_\_\_ Method \_\_\_\_\_  
 Altitude \_\_\_\_\_ Drilled Cable Rotary Reverse Rotary Air Rotary  
 Total Depth 473 ft. Measured, Reported, Date drilled December 14 19 72  
 Date well deepened \_\_\_\_\_ 19 \_\_\_\_\_ Total Depth \_\_\_\_\_ ft.  
 Casing Diameter 16 inches 0 to 432 ft \_\_\_\_\_ inches \_\_\_\_\_ to \_\_\_\_\_ ft \_\_\_\_\_ in \_\_\_\_\_ to \_\_\_\_\_ ft.  
 Perforations 0 to 432 ft \_\_\_\_\_ to \_\_\_\_\_ ft \_\_\_\_\_ to \_\_\_\_\_ ft.  
 Size opening 1/8" x 3" Cuts per foot 40  
 Major Aquifer \_\_\_\_\_ Minor Aquifer \_\_\_\_\_

## Projects \_\_\_\_\_

## PUMPING DATA

Date											
Source data											
SWL											
Altitude WL											
Discharge gpm											
Drawdown feet											
Specific Capacity											
Perforated Interval											
Formation Coefficient											

## CHEMICAL ANALYSES

Date											
Source data											
Conductivity											
Total Soluble salts											
Total Hardness											
Calcium											
Magnesium											
Sodium computed											
Carbonates											
Bicarbonates											
Chlorides											
Sulfates											
Nitrates											
Fluorides											
Boron											
Chromium											



MANERA &amp; ASSOCIATES, INC.

GROUND WATER INVESTIGATIONS

ELECTRICAL RESISTIVITY SURVEYS

PDC000205

DRILLER'S LOG

Cyprus-Bagdad Copper Company

Skunk Creek Well

SW $\frac{1}{4}$  SW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 17, T. 13 N., R. 9 W.

0 - 230 feet	Conglomerate, brown; 20% to 50% clays, 10% to 20% sands, 30% to 70% gravels; gravel fragment are largely granite and schist and average 1/16" to 1/8", locally some up to 1/4"; Angularity is subrounded to subangular; calcium carbonate present in fines.
230 - 255	Sandy-clayey conglomerate, brown; 55% clays, 25% sands, 20% gravels which average about 1/4" and are subangular, largely granite and schist; CaCO <sub>3</sub> in fines.
255 - 315	Sandy conglomerate, brown; 30% clays, 45% sands, 25% gravels, largely granite, schist, some gabbro; which are subrounded to subangular; calcium carbonate in fines.
315 - 473	Sandy-clayey conglomerate, brown to olive-brown; 40% to 50% clays, 35% to 45% sands, 15% to 20% gravels, which are largely gabbro, with some granite and schist fragments, all are subrounded to subangular; fragments average 1/16".
58	Depth first water encountered. No artesian water, water appears to be supplied from all conglomerate units.

**APPENDIX B**

**PUMPING TEST DATA**

**FINAL WELL TEST**

Date **JAN. 17. 73**

Customer **BAGDAD COPPER CO** Job No. \_\_\_\_\_

Well No. **Sikank Canyon Water Well** Location \_\_\_\_\_

Address \_\_\_\_\_

Cable Tool ☒ Rotary ☐ New ☒ Old ☐  
Pump at least one hour or until well has stabilized for each flow.

	Development Beginning of	FINAL TEST				
		High	Second	Third	Fourth	Low
GPM	280	974	703	503	402	250
Pumping level	93	286	179	137	117	95
Static level	58	58	58	58	58	58
Draw-down	35	228	121	79	59	35
Specific yield	8.2	4.2	5.8	6.1	6.8	6.1
Pump RPM	715	1400	1175	950	800	700
PPM Sand	MUDDY	10	5	1	1	ND

Recovery: 5 minute **102.8** Ft. 10 minute **91.65** Ft. 15 minute **81** Ft.

Total Pumping Time **36** hours

Water Temperature **70°F**

Total Pump Setting **420** Ft.

Pump Size **8x3x1 1/2** Air Line **399**

Bowl Manufacturer **LAYNE DOWLER**

Bowl Dia. **10** Stages **17** Model \_\_\_\_\_

Fuel Consumed **240** gal.

Oil Consumed **2** gal

Engines **#2 GMC DIESEL**

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Dan Dault** Operator

## AQUIFER TEST

Well No. (B-13-5) 17 DCCWell BAGDAD COPPER COMPANY, SKUNK CANYON WATER WELLT. 13 N S R. 9 E W Section 17 NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  SE  $\frac{1}{4}$ 

B &amp; M

SWL 58 Measuring Point 2' above ground

Date \_\_\_\_\_

Discharge Diameter 6 inches Orifice 5 inches.

Other Measuring Device \_\_\_\_\_

Type Bowls \_\_\_\_\_ Intake depth \_\_\_\_\_ feet

Data Collected By Bagdad Copper Company Perforated Interval \_\_\_\_\_

Date & Time	Reading Orifice Other	Discharge Q in gpm	Pumping Level Feet	Residual Draw Down Feet S	Specific Capacity	Form- ation Coeffi- cient	Time Since Pumping Started t Minutes	Time Since Pumping Stopped t' Minutes	t/t'	Remarks
1/22/73										448 gpm 10 day test
15:30		448	127	69	6.5		0			Start Pump
1/27/73		448	127	69	6.5					
		448	124	66	6.8					
1/28/73		448	130	72	6.23					
		448	122	64	7.0					
1/29/73		448	127	69	6.5					
		448	127	69	6.5					
1/30/73		448	125	67	6.7					
		448	127	69	6.5					
1/31/73		448	123	65	6.9					
		448	128	70	6.4					
2/1/73		448	130	72	6.23					
15:42		448	128.5	70.5	6.36		12972			
15:58							12988	0		
15:59.5			100.2	42.2			12989.5	1.5	8695.6	
16:01			93.68	35.68			12991	3	4330.3	
16:02			90.84	32.84			12992	4	3248	
16:03			88.51	30.57			12993	5	2598.6	
16:04			86.68	28.68			12994	6	2165.6	

WILL (2-10-5), 11 OCC

**PDC000210**

## AQUIFER TEST

Well No. (B-13-9) 17 bcc

Well BAGDAD COPPER COMPANY, SKUNK CANYON WATER WELL

T. 13 N S R 9 E W Section 17 NW 1/4 NW 1/4 SE 1/4

SWL 59' Measuring Point Date B &amp; M

Discharge Diameter 6 inches Orifice 5 inches.

Other Measuring Device

Type Bowls Intake depth feet

Data Collected By Bagdad Copper Company Perforated Interval

Date & Time	Reading Orifice Other	Discharge Q in gpm	Pumping Level Feet	Residual Draw Down Feet S	Specific Capacity	Formation Coefficient	Time Since Pumping Started t Minutes	Time Since Pumping Stopped t' Minutes	t/t'	Remarks
2/5/73										602 gpm 10 day test
10:00			59.0				0			Start
10:05		602	114	55	10.95		5			
10:10	24 1/2	602	121.33	62.33	9.66		10			
10:15	24 1/2	602	122.33	63.33	9.51		15			
10:20	24 1/2	602	131.5	72.5	8.30		20			
10:25	24 1/2	602	133.5	74.5	8.08		25			
10:30	24 1/2	602	135	76	7.92		30			
10:35	24 1/2	602	136.17	77.17	7.80		35			
10:40	24 1/2	602	137.5	78.5	7.67		40			
10:45	24 1/2	602	138.17	79.17	7.60		45			
10:50	24 1/2	602	139.17	80.17	7.51		50			
10:55	24 1/2	602	140.17	81.17	7.42		55			
11:00	24 1/2	602	141	82	7.34		60			
11:05	24 1/2	602	142.17	83.17	7.24		65			
11:10	24 1/2	602	143	84	7.17		70			
11:15	24 1/2	602	143.67	84.67	7.11		75			
11:20	24 1/2	602	144.17	85.17	7.07		80			
11:25	24 1/2	602	144.33	85.33	7.06		85			
11:30	24 1/2	602	144.85	85.85	7.01		90			
11:35	24 1/2	602	145.33	86.33	6.97		95			

DATE		PAGE		WELL (8-13-9) 17 bcc						
Date & Time	Reading Orifice Other	Discharge Q in gpm	Level Feet	Residual Draw Down Feet S	Specific Capacity	Formation Coefficient	Time Since Pumping Started Minutes	Time Since Pumping Stopped Minutes	t/t'	Remarks
11:40	24½	602	145.67	86.67	6.95		100			
11:45	24½	602	146	87	6.92		105			
11:50	24½	602	146.5	87.5	6.88		110			
11:55	24½	602	146.85	87.85	6.85		115			
12:00	24½	602	247.25	88.25	6.82		120			
15:00	24½	602	154	95	6.34		238			
2/6/73										
09:00	24½	602	266.17	107.17	5.62		1318			
15:00	24½	602	170.5	111.5	5.40		1678			
2/7/73										
09:00	24½	602	173.5	114.5	5.26		2758			
15:00	24½	602	176	117	5.15		3118			
2/8/73										
09:00	24½	602	175.5	116.5	5.17		4198			
15:00	24½	602	178.5	119.5	5.04		4558			
2/9/73										
09:00	24½	602	177	118	5.10		5458			
15:00	24½	602	180.17	121.17	4.97		5818			
2/10/73										
09:00	24½	602	177.75	120.75	4.99		6718			
15:00	24½	602	180.17	121.17	4.97		7078			
2/11/73										
09:00	24½	602	179	120	5.01		7978			
15:00	24½	602	180.85	121.85	4.94		8338			
2/12/73										
09:00	24½	602	181.42	122.42	4.92		9238			
15:00	24½	602	181.5	122.5	4.91		9598			
2/13/73										
09:00	24½	602	182.67	123.67	4.87		10498			
15:00	24½	602	183.5	124.5	4.84		10858			



Date & Time	Reading Orifice Other	Discharge Q in gpm	Pumping Level Feet	Residual Draw Down Feet S	Specific Capacity	Form- ation Coeffi- cient	Time Since Pumping Started t Minutes	Time Since Pumping Stopped t' Minutes	t/t'	Remarks
2/14/73										
09:00	24½	602	182	123	4.89		11758			
15:00	24½	602	185	126	4.78		12118			
2/15/73										
2/16/73										
10:00			183.54	124.54			15058	0		Pump Stopper
10:01			142	83			15059	1	15059	
10:02			128.89	69.89			15060	2	7530	
10:03			120.25	61.25			15061	3	5020	
10:04			114	55			15062	4	3766	
10:05			109.75	50.75			15063	5	3013	
10:06			106.71	47.71			15064	6	2510	7
10:07			104.75	45.75			15065	7	2152	1
10:08			102.75	43.75			15066	8	1883	3
10:09			101.25	42.25			15067	9	1674	1
10:10			100.08	41.08			15068	10	1506	8
10:11			98.96	39.96			15069	11	1369	9
10:12			98.04	39.04			15070	12	1255	8
10:13			97.17	38.17			15071	13	1159	3
10:14			96.42	37.42			15072	14	1076	6
10:15			95.67	36.67			15073	15	1004	8
10:20			92.96	33.96			15078	20	753	9
10:25			91.25	32.25			15083	25	603	3
10:30			89.71	30.71			15088	30	502	9
10:35			88.50	29.50			15093	35	431	2
10:40			87.62	28.62			15098	40	377	45
10:45			86.54	27.54			15103	45	335	6
11:00			84.29	25.29			15118	60	251	9
11:15			82.67	23.67			15133	75	201	7

